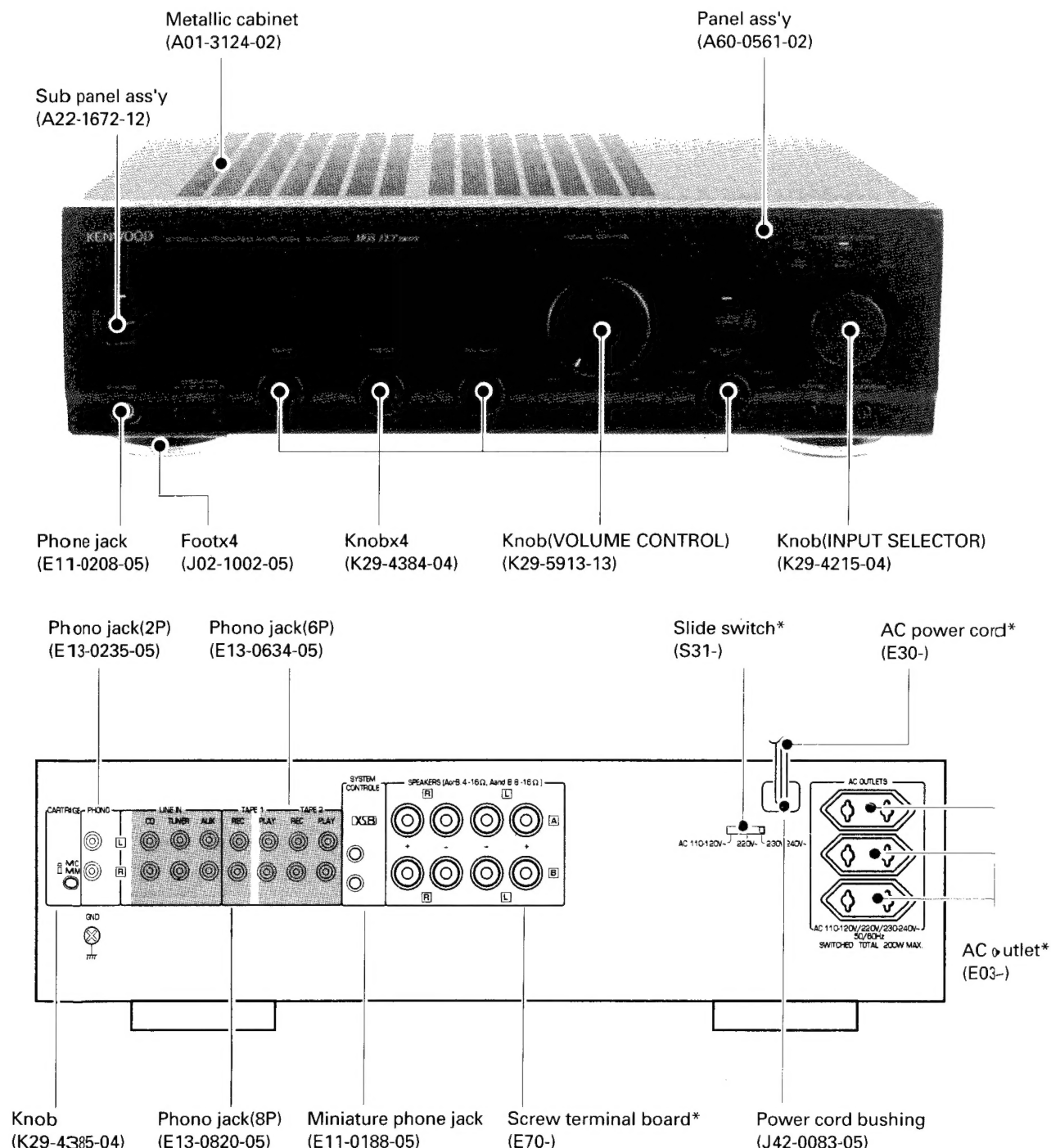


KA-4060R

SERVICE MANUAL

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B51-4881-00(K) 2411



*Refer to parts list on page 22

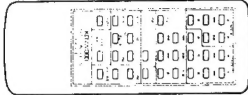
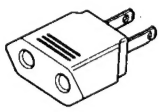
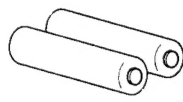
Caution : Signal ground floats from chassis ground. Please connect the cold lead of tester or oscilloscope to the cold terminal of speaker or input jack if check and/or measure the voltage.(Don't connect ground of unit.)

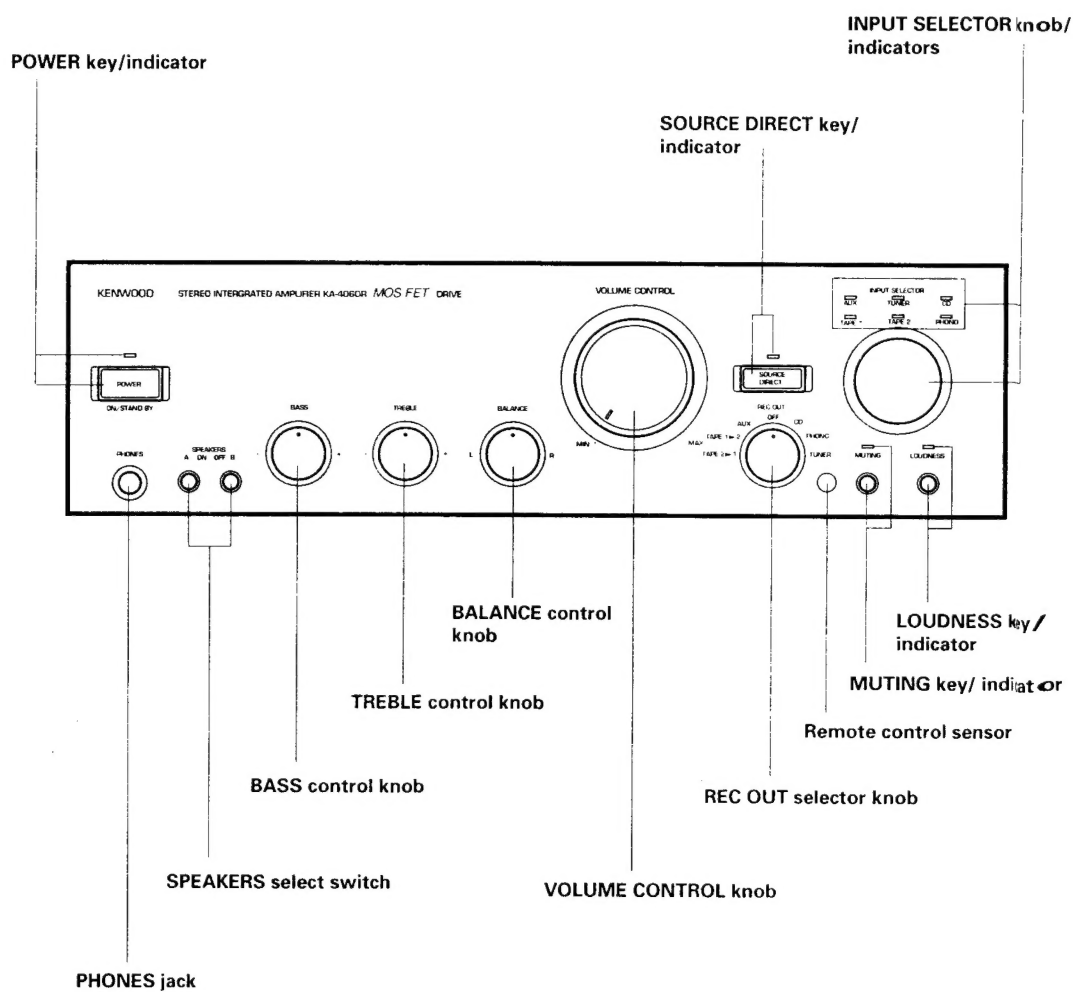
KA-4060R

CONTENTS

ACCESSORIES	2	PC BOARD	9
REMOTE CONTROL	3	SCHEMATIC DIAGRAM	13
CIRCUIT DESCRIPTION	4	EXPLODED VIEW	21
ADJUSTMENT	7	PARTS LIST	22
WIRING DIAGRAM	8	SPECIFICATIONS	25

Accessories

<ul style="list-style-type: none"> • Remote control unit (A70-0979-05) 1 	<ul style="list-style-type: none"> • AC plug adaptor 1 <p>(Except for U.K., Australia and Europe) For the unit with a European AC plug in areas other than Europe. (E03-0115-05)</p> 
<ul style="list-style-type: none"> • Batteries(R03/UM-4/ "AAA") 2 	



REMOTE CONTROL

Operation keys for KENWOOD components connected by system control cords

TAPE A operation keys

These keys perform the same operations as the corresponding keys on the cassette deck. However, operations requiring simultaneous pressing of two keys are not possible. These keys are used for operating Deck A of a double-cassette deck.

CD player operation keys

* The DISC key is only used for the Autochanger CD player.

INPUT SELECTOR keys

* MONITOR function is not available with this unit.

POWER key

TAPE B operation keys

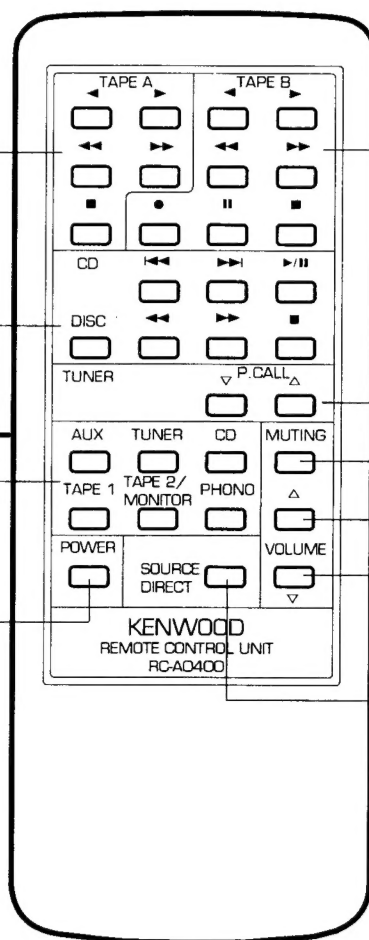
These keys perform the same operations as the corresponding keys on the cassette deck. However, operations requiring simultaneous pressing of two keys are not possible. These keys are used for operating Deck B of a double-cassette deck or single-cassette deck.

TUNER operation keys

MUTING key

VOLUME UP (Δ), DOWN (∇) keys

SOURCE DIRECT key



Model: RC-A0400
infrared system

KA-4060R operation keys

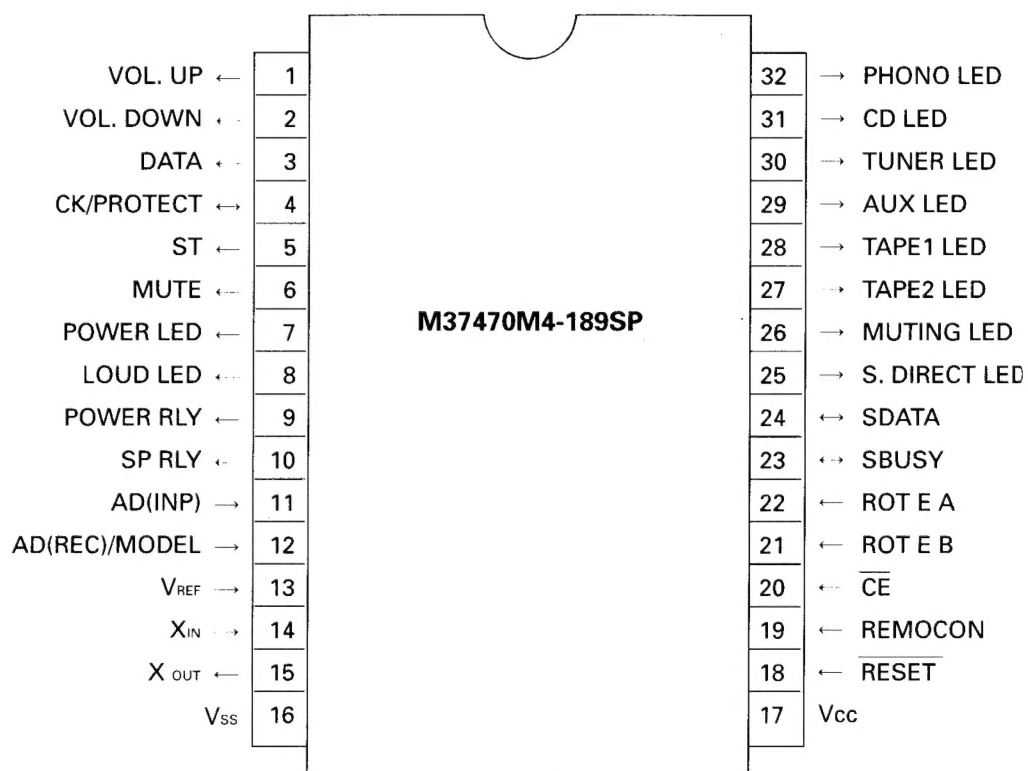
These keys have the same function as the corresponding keys on the main unit.

KA-4060R

CIRCUIT DESCRIPTION

Microprocessor M37470M4-189SP(X09:IC5)

Pin connection



CIRCUIT DESCRIPTION

Pin function

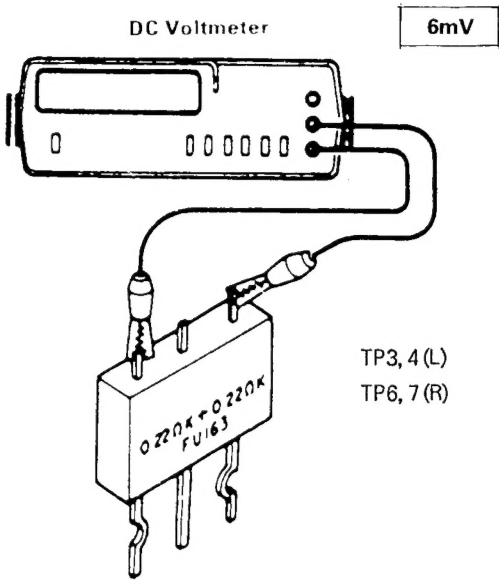
Pin NO.	Pin name	I/O	Name	Description
1	P17/Srdy	O	VOL.UP	Output of UP signal for control of electronic volume Electronic volume UP:HIGH Electronic volume except UP:LOW Back - up mode:LOW
2	P16/CLK	O	VOL.DOWN	Output of DOWN signal for control of electronic volume Electronic volume DOWN:HIGH Electronic volume except DOWN:LOW Back - up mode:LOW
3	P15/Sout	O	DATA	Output of DATA signal for control of selector IC(NJU7313, NJU7311)
4	P14/Sin	I/O	PROTECTION/CLK	Normally:input CLOCK output:output Protect ON:HIGH, Protect OFF:LOW Output of CLOCK signal for control of selector IC Back - up mode:input
5	P13/T1	O	ST	Output of ST signal for control of selector IC Normally:LOW Back - up mode:LOW
6	P12/T0	O	MAIN MUTE	Output of MUTE signal MUTE ON:HIGH, MUTE OFF:LOW Back - up mode:input
7	P11	O	POWER LED	Control of POWER LED LOW:ON, HIGH:OFF Back - up mode:input
8	P10	O	LOUDNESS LED	Control of LOUDNESS LED LOW:ON, HIGH:OFF Back - up mode:input
9	P23/IN3	O	POWER RELAY	Control of POWER RELAY POWER ON:HIGH, POWER OFF:LOW Back-up mode:LOW
10	P22/IN2	O	SPEAKER RELAY	Control of SPEAKER RELAY SPEAKER ON:HIGH, SPEAKER OFF:LOW Back - up mode:LOW
11	P21/IN1	I	INPUT SEL	Input of INPUT SEL analog signal Back - up mode:input
12	P20/IN0	I	REC SEL/ Model switching	Input of REC SEL analog signal Input of model switching analog signal More than 0.5V:KA - 4060R Less than 0.5V:KA 2060R/3060R Back - up mode:input
13	Vref	I	Vref	Standard voltage of A/D
14	Xin	I	Xin	Connection of crystal oscillator(8MHz)
15	Xout	O	Xout	Connection of crystal oscillator(8MHz)

CIRCUIT DESCRIPTION

16	Vss		Vss	GND
17	Vcc		Vcc	+5V
18	RESET	I	RESET	Reset
19	P30/INT0	I	REMOCON	Input of remote control signal
20	P31/INT1	I	CE	Back - up detection
21	P32/CNTR	I	ROTARY E A	Input of rotary encoder A signal HIGH:clockwise Back - up mode:input
22	P33/CNTR1	I	ROTARY E B	Input of rotary encoder B signal LOW:counterclockwise Back -up mode:input
23	P40	I/O	S BUSY	System serial BUSY signal input/output Back - up mode:input
24	P41	I/O	S DATA	System serial DATA signal input/output Back - up mode:input
25	P00	O	S.DIRECT LED	Control of SOURCE DIRECT LED LOW:ON, HIGH:OFF Back - up mode:input
26	P01	O	MUTING LED	Control of MUTING LED LOW:ON, HIGH:OFF Back - up mode:input
27	P02	O	TAPE 2 LED	Control of TAPE 2 LED LOW:ON, HIGH:OFF Back - up mode:input
28	P03	O	TAPE 1 LED	Control of TAPE 1 LED LOW:ON, HIGH:OFF Back - up mode:input
29	P04	O	AUX LED	Control of AUX LED LOW:ON, HIGH:OFF Back - up mode:input
30	P05	O	TUNER LED	Control of TUNER LED LOW:ON, HIGH:OFF Back - up mode:input
31	P06	O	CD LED	Control of CD LED LOW:ON, HIGH:OFF Back - up mode:input
32	P07	O	PHONO LED	Control of PHONO LED LOW:ON, HIGH:OFF Back - up mode:input

ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
Unless otherwise specified, set the respective switches as follows : POWER : ON SPEAKER : B REC OUT : OFF SELECTOR : PHONO							
1	IDLE CURRENT	—	Connect a DC voltmeter across TP 3,4 TP 6,7	VOLUME : 0	VR 3,5(L) VR 4,6(R)	6mV (30mA)	(a)



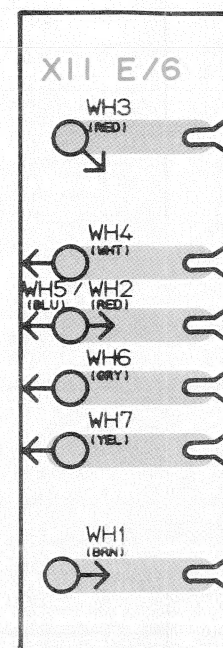
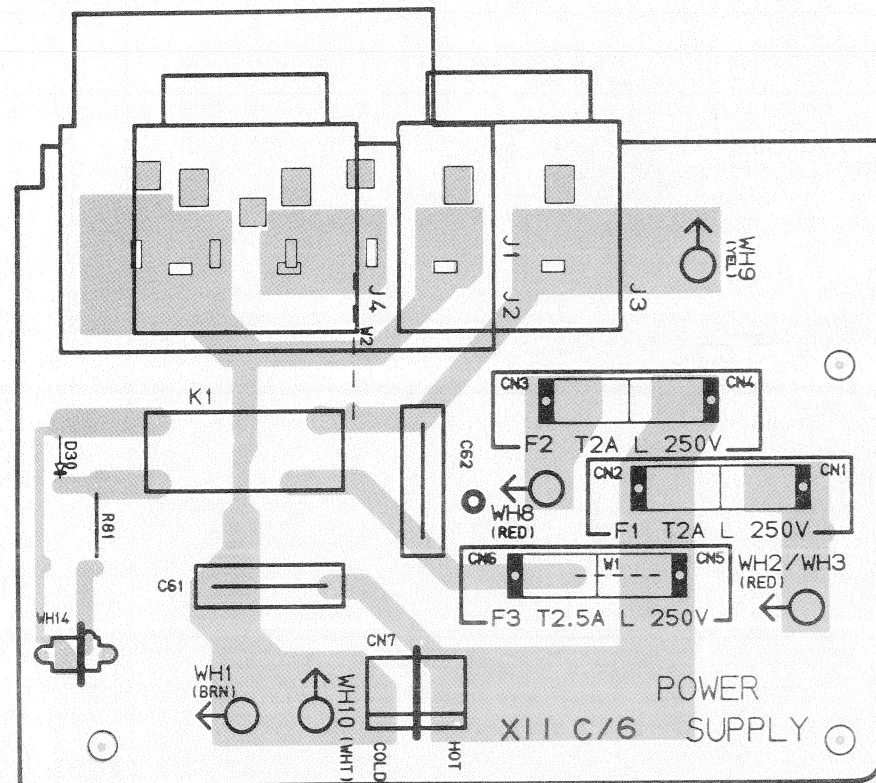
Caution : Signal ground floats from chassis ground. Please connect the cold lead of tester or oscilloscope to the cold terminal of speaker or input jack if check and/or measure the voltage.(Don't connect ground of unit.)

KA-4060R

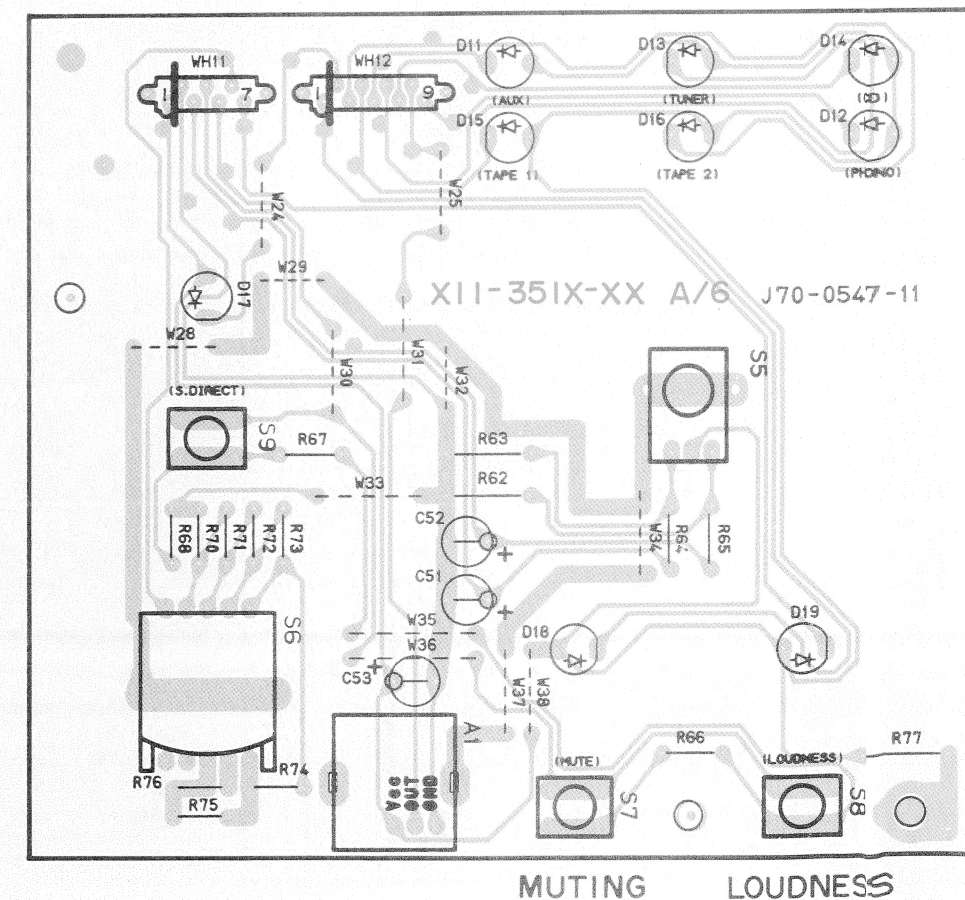
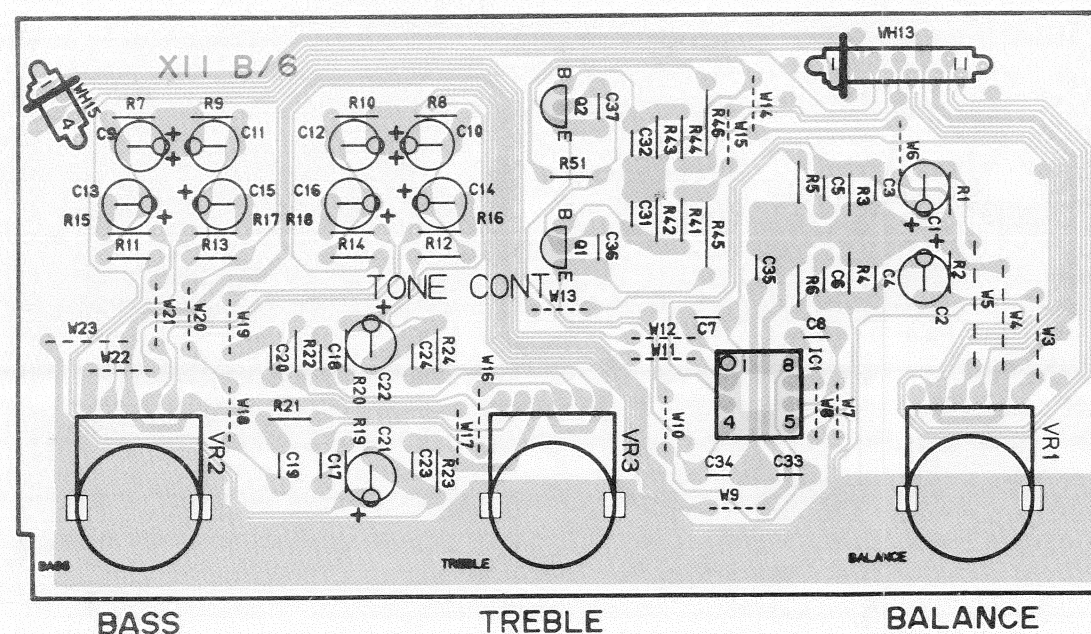
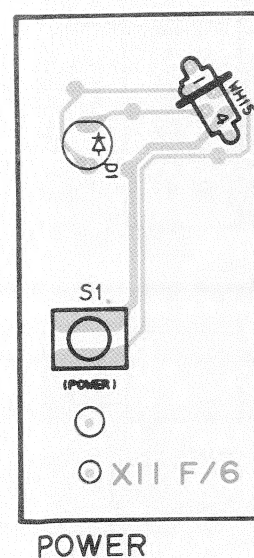
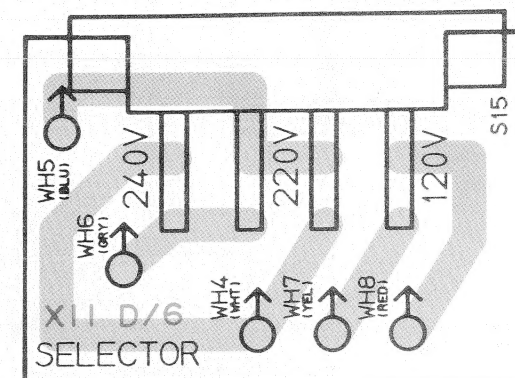


PC BOARD(Component side view) CONTROL UNIT(X11-351X-XX)

AC OUTLETS
AC100V 50/60Hz
SWITCHED TOTAL 200W MAX.



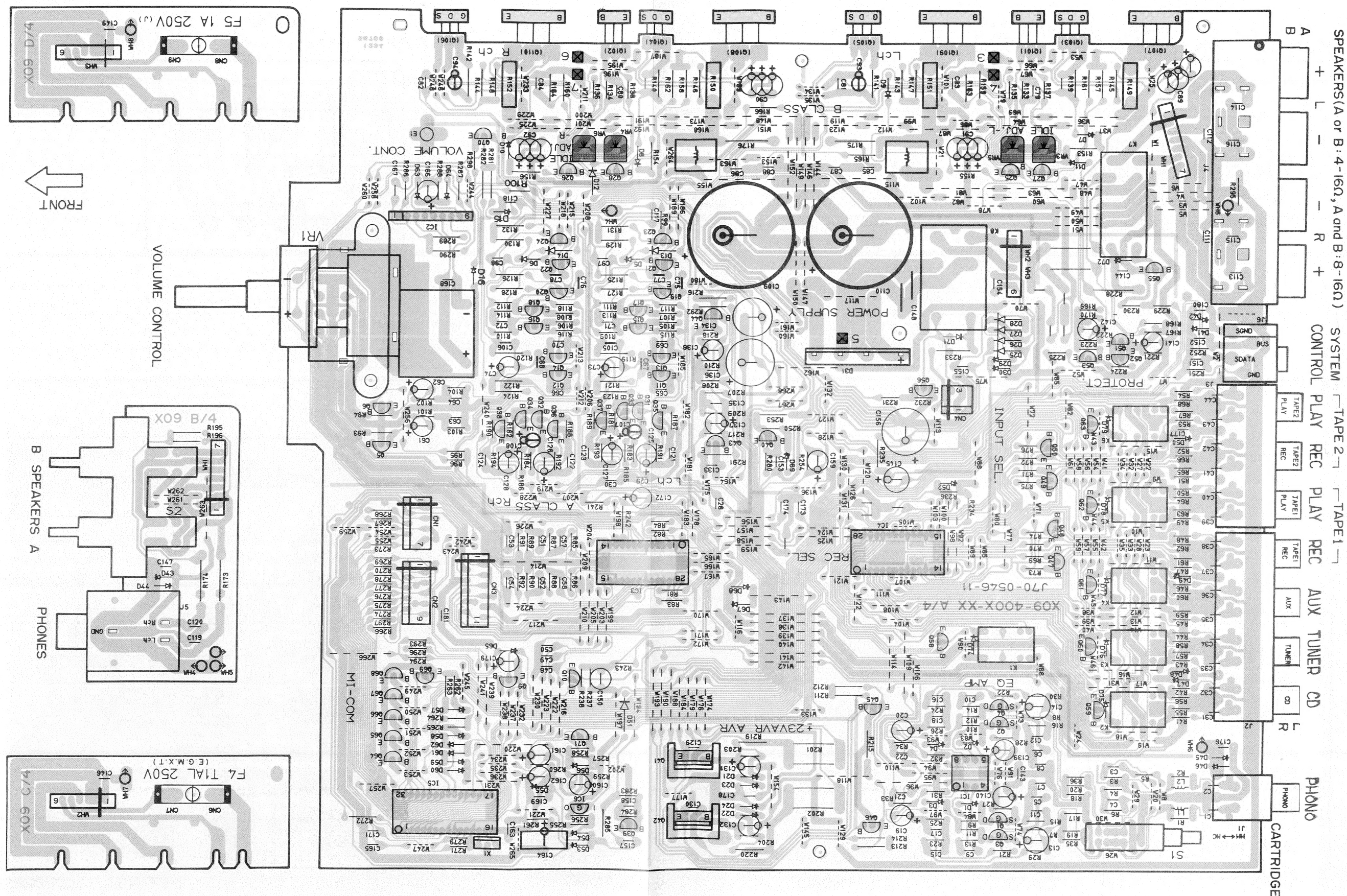
AC220V~
AC230V-240V~ | AC110V-120V~



Refer to the schematic diagram for the values of resistors and capacitors.

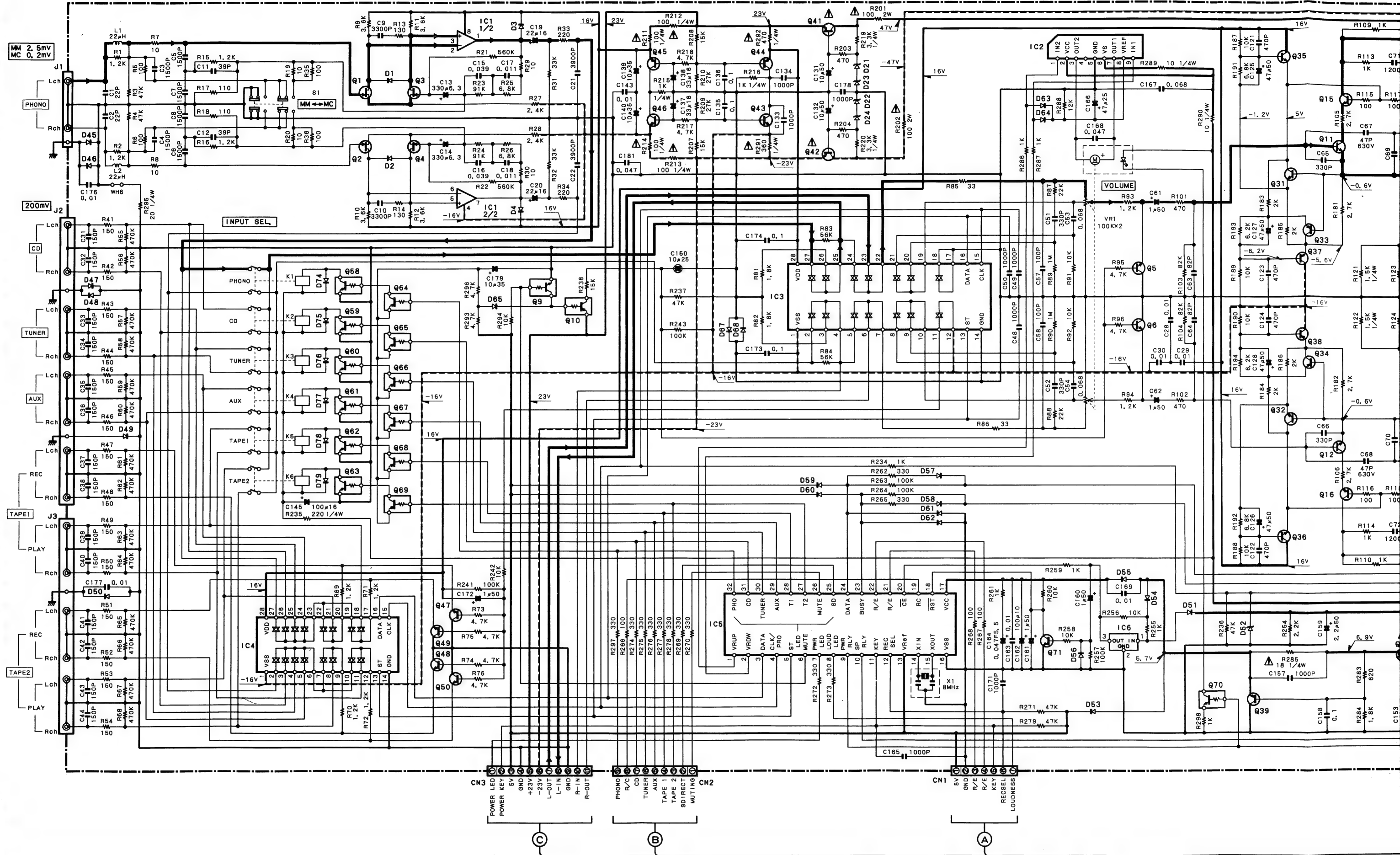
PC BOARD(Component side view)

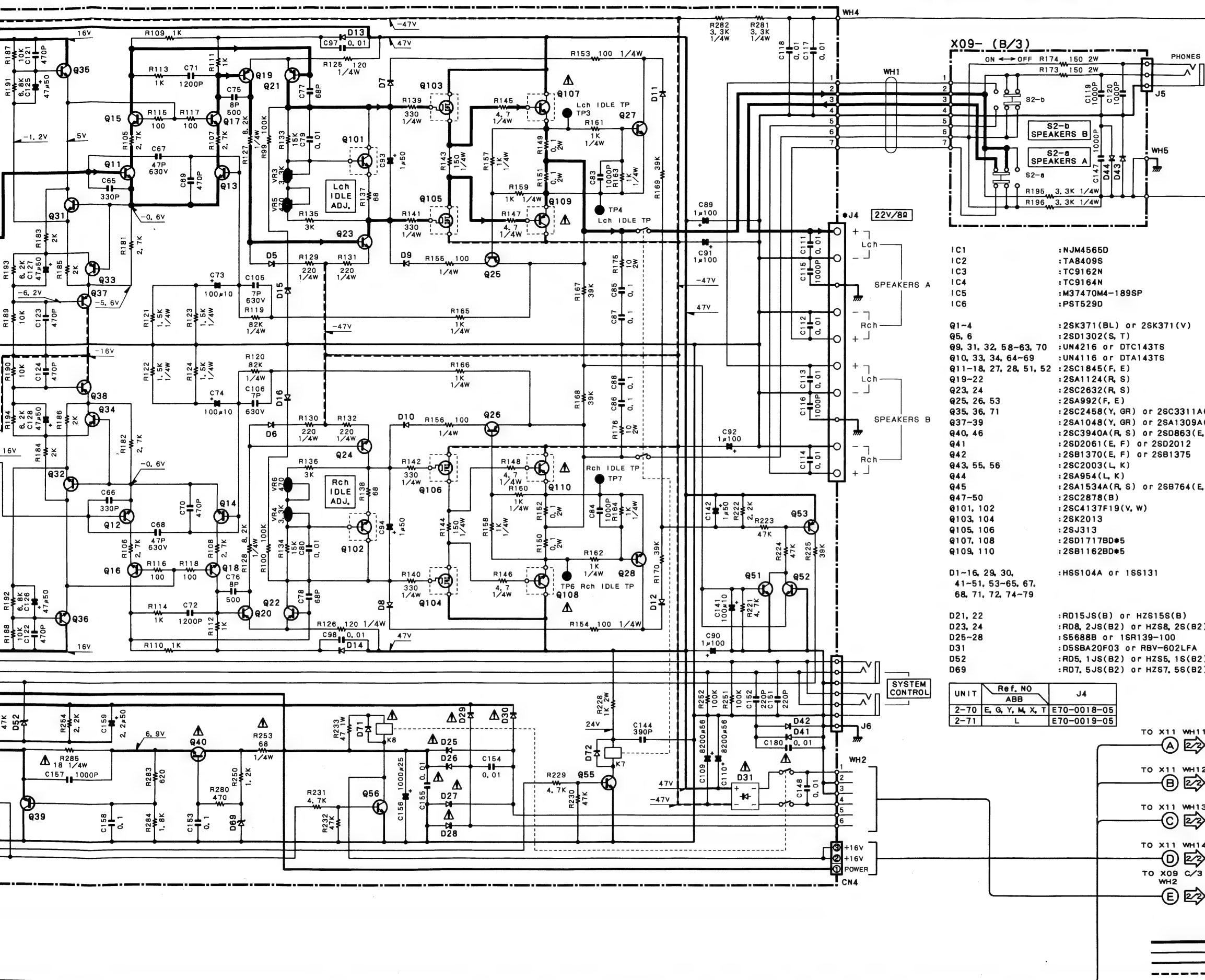
AUDIO UNIT(X09-400X-XX)



Refer to the schematic diagram for the values of resistors and capacitors.

X09-400X-XX (A/3) AUDIO UNIT





Signal ground floats from chassis ground. please connect the cold lead of tester or oscilloscope to the cold terminal of speaker or input jack if check and / or measure the voltage. (Don't connect ground of unit.)

• DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- IC1 : NJM4565D
 IC2 : TA8409S
 IC3 : TC9162N
 IC4 : TC9164N
 IC5 : M37470M4-189SP
 IC6 : PST529D
- Q1-4 : 2SK371(BL) or 2SK371(V)
 Q5, 6 : 2SD1302(S, T)
 Q9, 31, 32, 58-63, 70 : UN4216 or DTC143TS
 Q10, 33, 34, 64-69 : UN4116 or DTA143TS
 Q11-18, 27, 28, 51, 52 : 2SC1845(F, E)
 Q19-22 : 2SA1124(R, S)
 Q23, 24 : 2SC2632(R, S)
 Q25, 26, 53 : 2SA992(F, E)
 Q35, 36, 71 : 2SC2458(Y, GR) or 2SC3311A(Q, R)
 Q37-39 : 2SA1048(Y, GR) or 2SA1309A(Q, R)
 Q40, 46 : 2SC3940A(R, S) or 2SD863(E, F)
 Q41 : 2SD2061(E, F) or 2SD2012
 Q42 : 2SB1370(E, F) or 2SB1375
 Q43, 55, 56 : 2SC2003(L, K)
 Q44 : 2SA954(L, K)
 Q45 : 2SA1534A(R, S) or 2SB764(E, F)
 Q47-50 : 2SC2878(B)
 Q101, 102 : 2SC4137F19(V, W)
 Q103, 104 : 2SK2013
 Q105, 106 : 2SJ313
 Q107, 108 : 2SD1717BD*5
 Q109, 110 : 2SB1162BD*5
- D1-16, 29, 30, 41-51, 53-65, 67, 68, 71, 72, 74-79 : HSS104A or 1SS131
- D21, 22 : RD15JS(B) or HZS15S(B)
 D23, 24 : RD8, 2JS(B2) or HZS8, 2S(B2)
 D25-28 : 6S688B or 16R139-100
 D31 : D5SBA20F03 or RBV-602LFA
 D52 : RD5, 1JS(B2) or HZS5, 1S(B2)
 D69 : RD7, 5JS(B2) or HZS7, 5S(B2)

UNIT	Ref. NO	J4
2-70	E, G, Y, M, X, T	E70-0018-05
2-71	L	E70-0019-05

- TO X11 WH11
 TO X11 WH12
 TO X11 WH13
 TO X11 WH14
 TO X09 C/3
 TO WH2

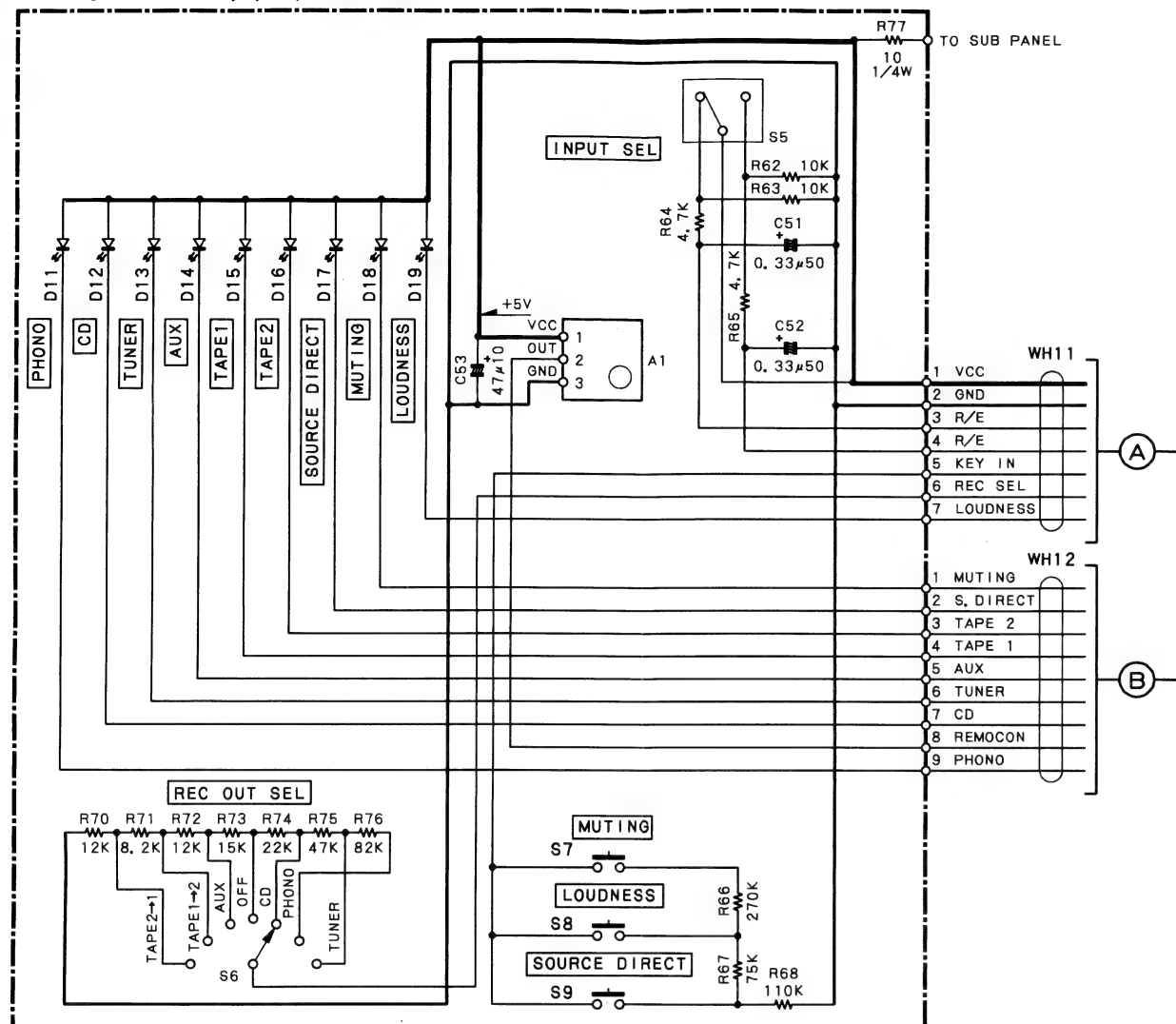
— SIGNAL LINE
 — GND LINE
 — +B LINE
 - - - -B LINE

- 2SA1124 2SB764 2SC2878
 2SA1534A 2SC1845 2SC3940A
 2SA954 2SC2003 2SD1302
 2SA992 2SC2632 2SD863
- DTA143TS 2SC2458
 DTC143TS
 UN4116
 2SA1048
- 2SB1162BD*5
 2SD1717BD*5
- 2SB1370
 2SD2061
- UN4216
 2SA1309A
 2SC3311A
- 2SB1375
 2SD2012
- NJM4565D
 NJM4565D-D
- TA8409S
- PST529D
- 2SK371
- TC9162N
 TC9164N

Y08-5042-70

KA-4060R
KENWOOD

X11-351X-XX (A/6) CONTROL UNIT



TO X09 CN1

TO X09 CN2

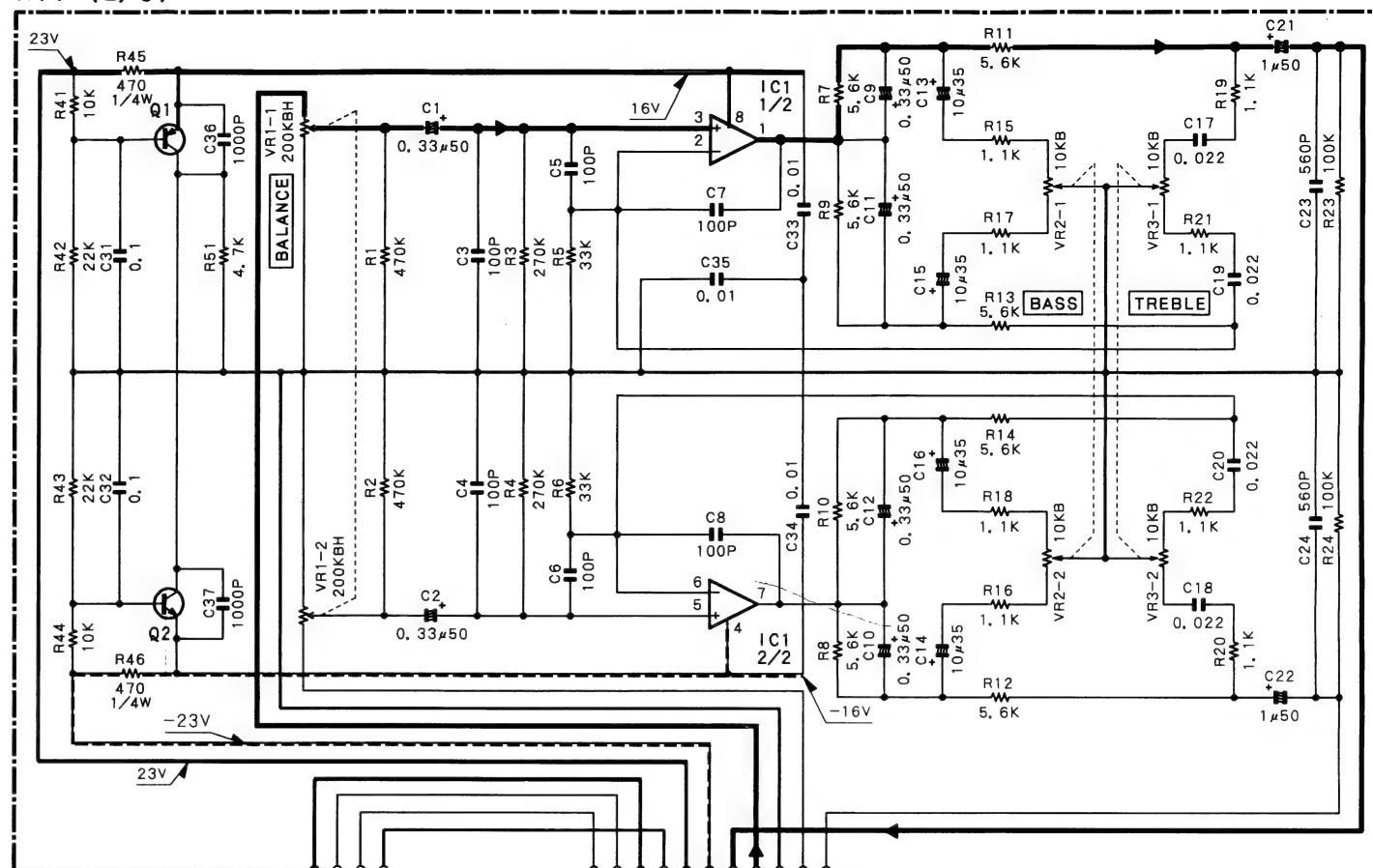
TO X09 CN3

TO X09 CN4

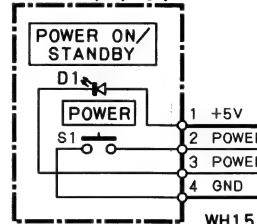
TO X09 A/3

WH2

X11-(B/6)



X11-(F/6)

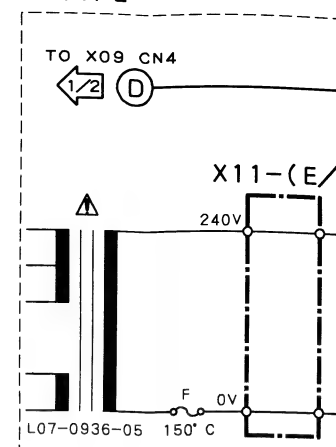


X11-351X-XX

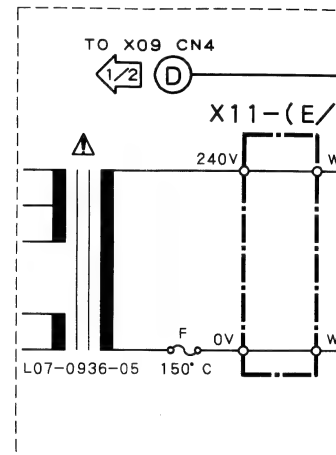
IC1 : NJM4565D-D
Q1 : 2SA954(L, K)
Q2 : 2SC2003(L, K)
D1, 11-19 : B30-1291-05
D30 : 1SS133 or HSS104

UNIT NAME	ABB
X11-3512-70	E, G, L
X11-3512-91	Y
X11-3510-21	M
X11-3510-71	X
X11-3510-51	T

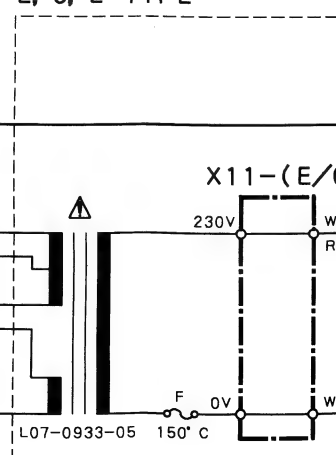
T TYPE



X TYPE



E, G, L TYPE



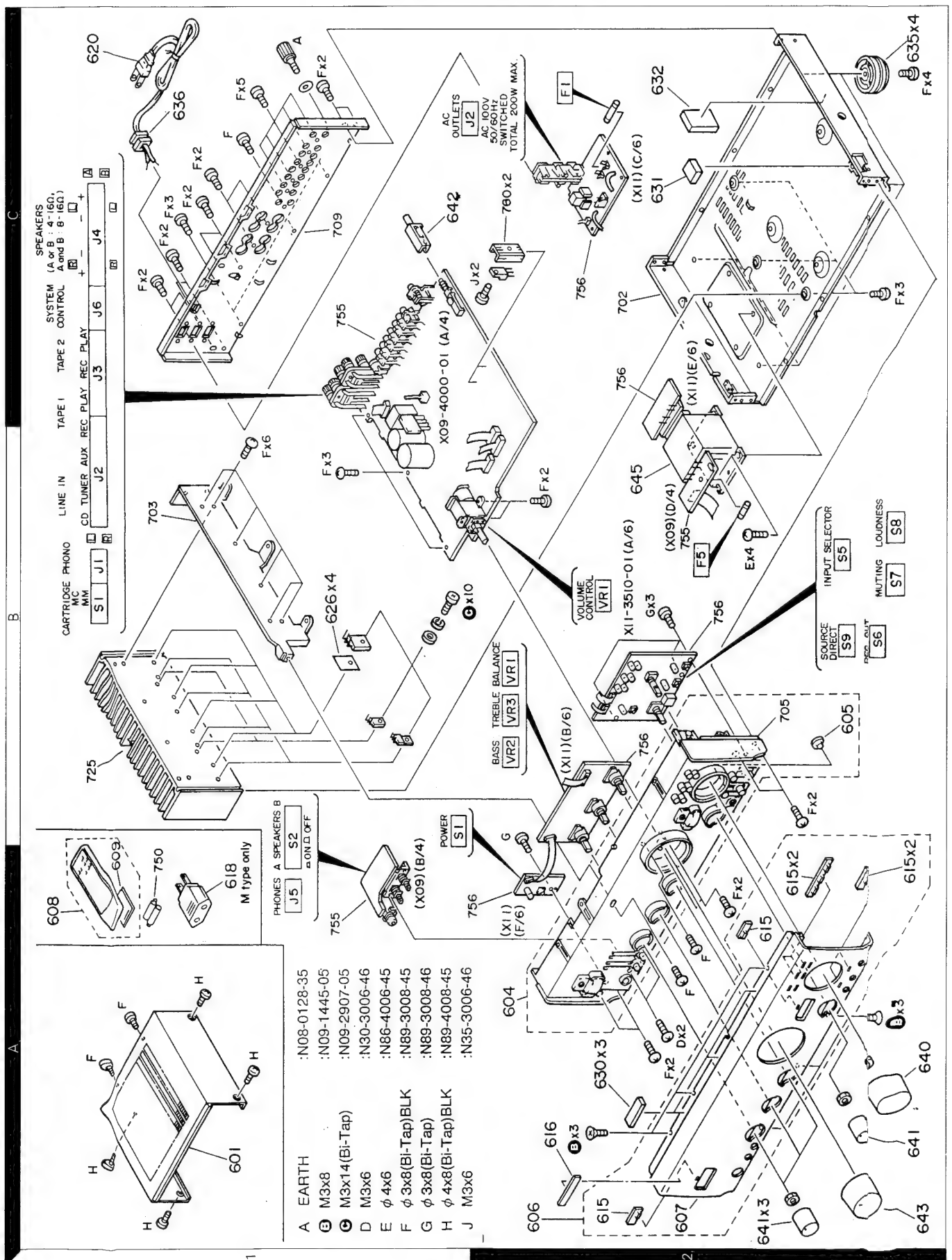
[illegible][illegible]

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KA-4060R
KENWOOD

Y08-5042-70

EXPLODED VIEW



PARTS LIST

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

2

Ref. No. 参照番号	Address 位置	New Parts 新部品	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向備考
641	2A		K29-4384-04	KN0B (BAS/TRBLE/BALANCE/R. OUT)	
642	1C	*	K29-4385-04	KN0B (M/MC)	
643	2A	*	K29-5913-13	KN0B ASSY (VOLUME CONTROL)	
645	2B	*	L07-0933-05	POWER TRANSFORMER	EGL
645	2B	*	L07-0935-05	POWER TRANSFORMER	YM
645	2B	*	L07-0936-05	POWER TRANSFORMER	XT
A	1C		N08-0128-35	BINDING POST (EARTH)	
B	2A		N09-1445-05	FLAT HEAD SET SCREW M3X8	
C	1B		N09-2907-05	TAPTITE WITH WASHER M3X14	
D	2A		N30-3006-46	PAN HEAD MACHINE SCREW M3X6	
E	2B		N86-4006-45	BINDING HD TAPTITE SCREW M4X6	
F	1C, 2A		N89-3008-45	BINDING HEAD TAPTITE SCREW	
G	2A, 2B		N89-3008-46	BINDING HEAD TAPTITE SCREW	
H	1A		N89-4008-45	BINDING HEAD TAPTITE SCREW	
AUDIO UNIT(X09-400X-XX)					
C1, 2			CC45FSL1H220J	CERAMIC 22PF J	
C3 -8			CC45FB1H152K	CERAMIC 1500PF K	
C9, 10		*	C992FM1H332JEL	MYLAR 3300PF J	
C11, 12		*	CC45FSL1H390J	CERAMIC 39PF J	
C13, 14		*	CE04KW0J331M	ELECTRO 330UF 6.3WV	
C15, 16		*	C092FM1H393JEL	MYLAR 0.039UF J	
C17, 18		*	C092FM1H113JEL	MYLAR 0.011UF J	
C19, 20		*	CE04KW1C220M	ELECTRO 22UF 16WV	
C21, 22		*	C992FM1H392JEL	MYLAR 3900PF J	
C28 -30		*	CK45FF1H103Z	CERAMIC 0.010UF Z	
C31 -44			CC45FSL1H151J	CERAMIC 150PF J	
C48 -50			CK45FB1H102K	CERAMIC 1000PF K	
C51, 52			CC45FSL1H331J	CERAMIC 330PF J	
C53, 54		*	C992FM1H683JEL	MYLAR 0.068UF J	
C57, 59		*	CC45FSL1H101J	CERAMIC 100PF J	
C61, 62			CE04KW1H010M	ELECTRO 1.0UF 50WV	
C63, 64			CC45FSL1H820J	CERAMIC 82PF J	
C65, 66			CC45GSL1H331J	CERAMIC 330PF J	
C67, 68			C91-1470-05	FILM 47PF K	
C69, 70			CK45FB1H471K	CERAMIC 470PF K	
C71, 72		*	C092FM1H122JEL	MYLAR 1200PF J	
C73, 74		*	CE04KW1A101M	ELECTRO 100UF 10WV	
C75, 76		*	CC45FSL2H0800	CERAMIC 8.0PF D	
C77, 78		*	CC45FSL2H680J	CERAMIC 68PF J	
C79, 80		*	CK45FF1H103Z	CERAMIC 0.010UF Z	
C83, 84		*	CC45FB1H102K	CERAMIC 1000PF J	
C85 -88		*	CF92FV1H104J	MF 0.10UF K	
C89 -92		*	CE04KW2A010M	ELECTRO 1.0UF 100WV	
C93, 94		*	C90-3568-05	ELECTRO 1UF 50WV	
C97, 98		*	C092FM1H103JEL	MYLAR 0.010UF J	
C105, 106		*	C91-1459-05	FILM 7PF K	
C109, 110		*	C90-3545-05	ELECTRO 8200UF 56WV	
C111-114		*	CK45FF1H103Z	CERAMIC 0.010UF Z	
C115, 116		*	CK45FB1H102K	CERAMIC 1000PF K	
C117		*	CF92FV1H103J	MF 0.010UF J	
C118		*	C092FM1H103JEL	MYLAR 0.010UF J	
C119, 120		*	C992FM1H102JEL	MYLAR 1000PF J	
C121-124		*	CK45FB1H471K	CERAMIC 470PF K	
C125-128		*	CE04KW1H470M	ELECTRO 470UF 50WV	

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

1

Ref. No. 参照番号	Address 位置	New Parts 新部品	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向備考
KA-4060R					
601	1A	*	A01-3124-02	METALLIC CABINET	
604	2A	*	A22-1672-12	SUB PANEL ASSY	
606	2A	*	A60-0561-02	PANEL ASSY	
607	2A	*	A60-0562-02	PANEL	
608	1A	*	A70-0979-05	REMOTE CONTROLLER ASSY	
609	1A	*	A09-0159-08	BATTERY COVER	
605	2B	*	B11-0237-14	COLOR FILTER	
615	2A	*	B12-0240-04	INDICATOR	
616	2A	*	B43-0287-04	KENWOOD BADGE	
-	-	*	B46-0094-03	WARRANTY CARD	Y
-	-	*	B46-0095-03	WARRANTY CARD	Y
-	-	*	B46-0096-43	WARRANTY CARD	X
-	-	*	B46-0310-03	WARRANTY CARD	EGLT
-	-	*	B58-0513-04	CAUTION CARD (PRESET220-240)	Y
-	-	*	B58-0964-03	CAUTION CARD (UL)	Y
-	-	*	B58-0965-03	CAUTION CARD (PTX TYPE PL)	XT
-	-	*	B58-0966-03	CAUTION CARD (ELM TYPE PL)	ELM
-	-	*	B58-0970-03	CAUTION CARD (R TYPE PL)	G
-	-	*	B60-1562-00	INSTRUCTION MANUAL (EN)	ELMYXT
-	-	*	B60-1563-00	INSTRUCTION MANUAL (FR)	EL
-	-	*	B60-1564-00	INSTRUCTION MANUAL (D/I)	EL
-	-	*	B60-1565-00	INSTRUCTION MANUAL (SP)	EL
-	-	*	B60-1566-00	INSTRUCTION MANUAL (C)	M
-	-	*	B60-1676-00	INSTRUCTION MANUAL (G)	EGL
618	1A		E03-0115-05	AC PLUG ADAPTER	M
620	1C		E30-2592-15	AC POWER CORD	EGLM
620	1C		E30-2717-05	AC POWER CORD	X
620	1C		E30-2721-05	AC POWER CORD	T
620	1C		E30-2739-05	AC POWER CORD	Y
J2	2C		E03-0141-05	AC OUTLET	X
626	1B	*	F20-1322-05	INSULATING BOARD	
-	-	*	F20-1402-04	INSULATING BOARD	
630	2A	*	G10-0412-04	NON-HOVEN FABRIC (15X10X6)	
631	2C	*	G11-0132-04	SOFT TAPE	
632	2C	*	G11-2203-04	CUSHION	
-	-	*	G11-2204-04	CUSHION	
-	-	*	H50-1015-04	ITEM CARTON CASE	EGLYMX
-	-	*	H50-1016-04	ITEM CARTON CASE	T
-	-	*	H10-5742-02	POLYSTYRENE FOAMED FIXTURE (L)	
-	-	*	H10-5743-02	POLYSTYRENE FOAMED FIXTURE (R)	
-	-	*	H12-2194-04	PACKING FIXTURE	
-	-	*	H13-0155-04	CARTON BOARD	X
-	-	*	H25-0225-04	PROTECTION BAG (850X450X0.03)	EGLYMX
-	-	*	H25-0232-04	PROTECTION BAG (235X350X0.03)	EGLYMX
-	-	*	H25-0651-04	PROTECTION BAG (0232 PRINTED)	T
-	-	*	H25-0654-04	PROTECTION BAG (0225 PRINTED)	T
636	1C		J42-0083-05	POWER CORD BUSHING	
-	-		J61-0307-05	WIRE BAND	
640	2A		K29-4215-04	KN0B (INPUT SELECTOR)	

L:Scandinavia K:USA P:Canada R:MEXICO
Y:PX(Far East, Hawaii) T:England E:Europe G:GERMANY
X:AAFE(S)(Europe) X:Australia M:Other Areas
A indicates safety critical components.

PARTS LIST

* New Parts
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Teile ohne Parts No. werden nicht geliefert.

3

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向備考
C131, 132 C133, 134 C135, 136 C137, 138 C139, 140		CE04KW1H100M CF92EV1H102J CF92EV1H104J CE04KW1C330M CE04KW1V100M	ELECTR0 MF MF ELECTR0 ELECTR0 ELECTR0	50WV J J 16WV 35WV 100F
C141 C142 C143 C144 C145		CE04KW1A101M CE04KW1H010M CF92EV1H103J CF92EV1H103J CF92EV1H103J CF92EV1H103J	ELECTR0 ELECTR0 ELECTR0 ELECTR0 ELECTR0 ELECTR0	100WV 100WV J J J J
C146 C147 C148 C149 C150 C151, 152		CE04KW1H222JEL CF92EV1H102K CF92EV1H103P CF92EV1H103P CF92EV1H103P CF92EV1H103P	MYLAR MYLAR MYLAR MYLAR MYLAR MYLAR	2200PF J K K K K
C153 C154, 155 C156 C157 C158		CE04KW1H104JEL CF92EV1H103Z CF92EV1H103Z CF92EV1H103Z CF92EV1H103Z	MYLAR MYLAR MYLAR MYLAR MYLAR	0.10UF J J J J
C159 C160, 161 C162 C163 C164		CE04KW1H2R2M CE04KW1H010M CE04KW1A101M CE04KW1H103JEL CE04KW1H103JEL	ELECTR0 ELECTR0 ELECTR0 ELECTR0 ELECTR0	50WV 50WV 10WV 10WV 10WV
C165 C166 C167 C168 C169		CE04KW1H102K CE04KW1E470M CE04KW1E470M CE04KW1E470M CE04KW1E470M	CERAMIC CERAMIC CERAMIC CERAMIC CERAMIC	1000PF K K K K
C171 C172 C173, 174 C176 C177		CE04KW1H102K CE04KW1H103JEL CE04KW1H103JEL CE04KW1H103JEL CE04KW1H103JEL	CERAMIC CERAMIC CERAMIC CERAMIC CERAMIC	1000PF K K K K
C178 C179 C180 C181		CE04KW1H102K CE04KW1H103JEL CE04KW1H103JEL CE04KW1H103JEL	CERAMIC CERAMIC CERAMIC CERAMIC	1000PF K K K
J1 J2 J3 J4 J4		E13-0235-05 E13-0820-05 E13-0634-05 E13-0634-05 E13-0634-05	PHONE JACK(2P) PHONO PHONE JACK(8P) CD/TUN/AUX/T1 R PHONE JACK(6P) T1 PLAY/TAPE 2 SCREW TERMINAL BOARD SPEAKERS SCREW TERMINAL BOARD SPEAKERS	PHONO PHONO PHONO PHONO PHONO
J5 J6 F4 CN6, 7 L1 X1 F		E11-0208-05 E11-0188-05 F06-1022-05 J11-0098-05 J13-0073-05 L40-2201-17 L78-0290-05 N89-3008-45	PHONE JACK PHONES MINIATURE PHONE JACK(2P) S. CON FUSE (SEM00) (250V TIAL) WIRE CLAMPER FUSE CLIP SMALL FIXED INDUCTOR(220UH,K) RESONATOR (8MHZ) BINDING HEAD TAP TITE SCREW	PHONES S. CON FUSE FUSE FUSE INDUCTOR RESONATOR TAP TITE SCREW

LS Scandinavia
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RMEXICO
GGERMANY
indicates safety critical components.

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4

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部 品 名 / 規 格	Desti- nation 仕 向 備考
J	1C		N35-3006-46	BINDING HD MACHINE SCREW M3X6	
R23, 24			RN14BK2C9102FTS	91.0K F 1/6W	
R25, 26			RN14BK2C6801FTS	6.80K F 1/6W	
R99, 100			RN14BK2C1003FTS	100 F 1/6W	
R125, 126			RN14AB2E121JTS	FL-PR00F RD 120 J 1/4W	
R127, 128			RN14AB2E222JTS	FL-PR00F RD 8.2K J 1/4W	
R129-132			RN14AB2E221JTS	FL-PR00F RD 220 J 1/4W	
R130-142			RN14AB2E331JTS	FL-PR00F RD 330 J 1/4W	
R143, 144			RN14AB2E151JTS	FL-PR00F RD 150 J 1/4W	
R145-148			RN14AB2E47JTS	FL-PR00F RD 4.7 J 1/4W	
R149-152			R92-0205-05	METAL-PLATE 0.1 K 2W	
R153-156			RN14AB2E101JTS	FL-PR00F RD 100 J 1/4W	
R157-164			RN14AB2E102JTS	FL-PR00F RD 1.0K J 1/4W	
R173, 174			RS14DB3D101JTE	FL-PR00F RS 150 J 2W	
R175, 176			RS14DB3D100JTE	FL-PR00F RS 10 J 2W	
R195, 196			RN14BK2E3301FTS	RN 3.30K F 1/4W	
R201, 202			RS14DB3D101JTE	FL-PR00F RS 100 J 2W	
R211-214			RN14BK2E1000FTS	100.0 F 1/4W	
R215, 216			RN14BK2E1001FTS	1.00K F 1/4W	
R219, 220			RN14AB2E332JTS	FL-PR00F RD 3.3K J 1/4W	
R228			RS14DB3D102JTE	FL-PR00F RS 1.0K J 2W	
R233			RS14DB3A470JTE	FL-PR00F RS 47 J 1W	
R235			RN14BK2E2200FTS	RN 220.0 F 1/4W	
R253			RN14AB2E680JTS	FL-PR00F RD 68 J 1/4W	
R281, 282			RN14BK2E3301FTS	RN 3.30K F 1/4W	
R285			RN14AB2E180JTS	FL-PR00F RD 18 J 1/4W	
R289, 290			RN14AB2E100JTS	FL-PR00F RD 10 J 1/4W	
R291	*		RN14BK2E3600FTS	RN 360.0 F 1/4W	
R292	*		RN14BK2E4700FTS	RN 470.0 F 1/4W	
R295	*		RN14BK2E2000FTS	RN 20.0 F 1/4W	
VR1	*		R29-5089-05	POTENTIOM. 100K X2	
VR3, 4			R12-1618-05	TRIMMING POT. (3.3K) IDLE ADJ.	
VR5, 6			R12-0607-05	TRIMMING POT. (470) IDLE ADJ.	
K1 -6			S76-0027-05	MAGNETIC RELAY INPUT SELECTOR	
K7			S51-2092-05	MAGNETIC RELAY	
K8			S76-0015-05	MAGNETIC RELAY	
S1	*		S68-0033-05	PUSH SWITCH MM/MC	
S2	*		S42-2139-05	MULTIPLE PUSH SWITCH SPEAKERS	
D1 -16			HSS104A	DIODE	
D1 -16			1SS131	DIODE	
D21, 22			HZS15S(B)	ZENER DIODE	
D21, 22			R015JS(B)	ZENER DIODE	
D23, 24			HZ58, 2S(B2)	ZENER DIODE	
D23, 24			RD8, 2JS(B2)	ZENER DIODE	
D25-28			S56888	DIODE	
D29-30			1SR139-100	DIODE	
D29, 30			HSS104A	DIODE	
D29, 30			1SS131	DIODE	
D31			D5SBA20F03	DIODE	
D31			RBV-602LFA	DIODE	
D41 -51			HSS104A	DIODE	
D41 -51			1SS131	DIODE	
D52			HZ55, 1S(B2)	ZENER DIODE	

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PARTS LIST

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6

Ref. No. 参照番号	Address 位置	New Parts 部品番号	Description 部品名 / 規格	Desti- nation 仕
Q64 -69		DTA143TS	DIGITAL TRANSISTOR	
Q64 -69		UN4116	TRANSISTOR	
Q70		DTA143TS	DIGITAL TRANSISTOR	
Q70		UN4216	TRANSISTOR	
Q71		2SC2458(Y, GR)	TRANSISTOR	
Q71		2SC3311A(Q, R)	TRANSISTOR	
Q101, 102		2SC4137F19(V, W)	TRANSISTOR	
Q103, 104		2SK2013	FET	
Q105, 106		2SK313	FET	
Q107, 108		2SD1717B0*5	TRANSISTOR	
Q109, 110		2SB1162B0*5	TRANSISTOR	
CONTROL UNIT(X11-351X-XX)				
D1		B30-1291-05	LED	
D11 -19		B30-1291-05	STAND BY INPUT SELECTOR	
C1, 2		CE04KW1HR33M	ELECTRO 0.33UF 50WV	
C3 -8		CF92FV1H101K	MF 100PF K	
C9 -12		CE04KW1HR33M	ELECTRO 0.33UF 50WV	
C13 -16		CE04KW1V100M	ELECTRO 10UF 35WV	
C17 -20	*	CQ92FM1H223JEL	MYLAR 0.022UF J	
C21, 22		CE04KW1H010M	ELECTRO 1.0UF 50WV	
C23, 24		CF92FV1H561J	MF 560PF J	
C31, 32	*	CQ92FM1H104JEL	MYLAR 0.10UF J	
C33 -35	*	CQ92FM1H103JEL	MYLAR 0.010UF J	
C36, 37	*	CQ92FM1H102JEL	MYLAR 1000PF J	
C51, 52		CE04KW1HR33M	ELECTRO 0.33UF 50WV	
C53		CE04KW1A470M	ELECTRO 470UF 10WV	
C61, 62		C91-1488-05	MF 6800PF 250VAC	
J1	*	E03-0147-05	AC OUTLET	EGLM
J2	*	E03-0306-05	AC OUTLET	Y
J3, 4	*	E03-0109-05	AC OUTLET	T
F1		F06-2021-05	FUSE (SEMKO) (250V T2AL)	
F2		F06-2021-05	FUSE (SEMKO) (250V T2AL)	YM
F3		F05-2525-05	FUSE (SEMKO) (250V T2.5AL)	EGL
CN1, 2		J13-0075-05	FUSE CLIP	
CN3, 4		J13-0075-05	FUSE CLIP	
CN5, 6		J13-0075-05	FUSE CLIP	
R45, 46		RN14BK2E4700FTS	RN 470.0 F 1/4W	
R81		R014GB2E820JTS	FL-PROOF RD 82 J 1/4W	
VR1		R06-5191-05	POTENTIOMETER(200KB) BALANCE	
VR2, 3		R06-3061-05	POTENTIOMETER(10KB) BASS/TRBLE	
K1		S76-0009-05	MAGNETIC RELAY	
S1		S40-1064-05	PUSH SWITCH POWER	
S6		S60-0011-05	ROTARY SWITCH REC. OUT	
S7 -9		S40-1064-05	PUSH SWITCH MUTE/LOUD/S.DIR	
S15		S31-2322-05	SLIDE SWITCH AC VOLTAGE SEL	YM
S5		T99-0526-05	ROTARY ENCODER INPUT SELECTOR	
D30		HSS104	DIODE	
D30		1SS132	DIODE	
LC1		NRA155D-D	LC(OP AMP X2)	
Q1		2SA454(L, K)	TRANSISTOR	
Q2		2SC2003(L, K)	TRANSISTOR	
A1		W02-1153-05	ELECTRIC CIRCUIT MODULE	

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5

Ref. No. 参照番号	Address 位置	New Parts 部品番号	Description 部品名 / 規格	Desti- nation 仕
D52		RD5.1JS(B2)	ZENER DIODE	
D53 -65		HSS104A	DIODE	
D53 -65		1SS131	DIODE	
D67, 68		HSS104A	DIODE	
D67, 68		1SS131	DIODE	
D69		HZ57-5S(B2)	ZENER DIODE	
D71, 72		RD7.5JS(B2)	ZENER DIODE	
D71, 72		HSS104A	DIODE	
D71, 72		1SS131	DIODE	
D74 -79		HSS104A	DIODE	
D74 -79		1SS131	DIODE	
IC1		NM4565D	IC(OP AMP X2)	
IC2		TAB409S	IC(MOTOR CONTROL)	
IC3		TC9142N	IC(ANALOG SWITCH ARRAY)	
IC4		TC9144N	IC(16CH BILATERAL SELECTOR SW)	
IC5	*	M37470M4-189SP	MI-COM IC	
IC6		PST5200	IC(SYSTEM RESET)	
Q1 -4		2SK371(BL)	FET	
Q1 -4		2SK371(V)	FET	
Q5, 6		2SD1502(S, T)	TRANSISTOR	
Q8		DTA143TS	DIGITAL TRANSISTOR	
Q9		UN4216	TRANSISTOR	
Q10		DTA143TS	DIGITAL TRANSISTOR	
Q11 -18		UN4116	TRANSISTOR	
Q11 -18		2SC1845(F, E)	TRANSISTOR	
Q19 -22		2SA1124(R, S)	TRANSISTOR	
Q23, 24		2SC2632(R, S)	TRANSISTOR	
Q25, 26		2SA992(F, E)	TRANSISTOR	
Q27, 28		2SC1845(F, E)	DIGITAL TRANSISTOR	
Q31, 32		DTA143TS	TRANSISTOR	
Q31, 32		UN4216	TRANSISTOR	
Q33, 34		DTA143TS	DIGITAL TRANSISTOR	
Q33, 34		UN4116	TRANSISTOR	
Q35, 36		2SC2458(Y, GR)	TRANSISTOR	
Q35, 36		2SC3311A(Q, R)	TRANSISTOR	
Q37 -39		2SA1048(Y, GR)	TRANSISTOR	
Q37 -39		2SA1309A(Q, R)	TRANSISTOR	
Q40		2SC3940A(R, S)	TRANSISTOR	
Q40		2SC843(E, F)	TRANSISTOR	
Q41		2SD2012	TRANSISTOR	
Q41		2SD2061(E, F)	TRANSISTOR	
Q42		2SB1570(E, F)	TRANSISTOR	
Q43		2SB1575	TRANSISTOR	
Q44		2SC2003(L, K)	TRANSISTOR	
Q44		2SA954(L, K)	TRANSISTOR	
Q45		2SA1534A(R, S)	TRANSISTOR	
Q45		2SB764(E, F)	TRANSISTOR	
Q46		2SC3940A(R, S)	TRANSISTOR	
Q46		2SD863(E, F)	TRANSISTOR	
Q47 -50		2SC2878(B)	TRANSISTOR	
Q51, 52		2SC1845(F, E)	TRANSISTOR	
Q53		2SC2003(L, K)	TRANSISTOR	
Q58 -63		DTA143TS	DIGITAL TRANSISTOR	
Q58 -63		UN4216	TRANSISTOR	

L:Scandinavia
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Y:AFES(Europe)

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P:Canada
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G:GERMANY

Δ indicates safety critical components.

SPECIFICATIONS

FOR U. K. and Europe

Continuous rated power output

(DIN) 1kHz, at 8 Ω 70W+70W
 at 4 Ω 90W+90W

(IEC/NF) From 63Hz to 12,500Hz, 0.7% T.H.D.

at 8 Ω 70W+70W
 at 4 Ω 90W+90W

Dynamic power 85W(8 Ω)
 100W(6 Ω)
 120W(4 Ω)

Damping factor 40(50Hz)

Total harmonic distortion

..... 0.06%(20Hz~20,000Hz, 60W, 8 Ω)

0.03%(1kHz, 60W, 8 Ω)

Intermodulation distortion 0.03%(60W, 8 Ω)
 (70Hz : 7kHz = 4:1)

Frequency response(IHF '78)

CD/TUNER/AUX/TAPE 1, 2

..... 5Hz~90kHz, +0dB, -3dB

PHONO 'RIAA' response 20Hz~20kHz,
 +0.3dB, -0.3dB

Maximum input level

PHONO(MM) 120mV, 0.3% T.H.D. at 1kHz

PHONO(MC) 10mV, 0.3% T.H.D. at 1kHz

Signal to noise ratio

PHONO(MM) 88dB(IHF '66)
 79dB(IHF '78)

PHONO(MC) 68dB(IHF '66)
 75dB(IHF '78)

CD/TUNER/AUX/TAPE1, 2 105dB(IHF '66)
 81dB(IHF '78)

PHONO(MM) 63dB(DIN, 50mW output)

CD/TUNER/AUX/TAPE1,2

..... 63dB(DIN, 50mW output)

Input sensitivity/impedance

PHONO(MM) 2.5mV/47k Ω

PHONO(MC) 0.2mV/100 Ω

CD/TUNER/AUX/TAPE1,2 200mV/47k Ω

Tone control

BASS ± 10 dB(at 100Hz)

TREBLE ± 10 dB(at 10kHz)

Loudness control

(VOLUME at -30 dB level) +6dB(100Hz)

+3dB(10kHz)

Output level/impedance

TAPE REC 200mV/1.5k Ω

General

Power consumption 200W(IEC)

AC outlets

For U. K.

SWITCHED 2;(Total 200W max.)

For Europe

SWITCHED 3;(Total 200W max.)

Dimensions W : 440mm (17-5/16")

H : 137mm (5-3/8")

D : 351mm(13-13/16")

Weight(net) 7.9kg(17.4lb)

KA-4060R

SPECIFICATIONS

FOR OTHER COUNTRIES

Continuous rated power output

(IHF '66) From 20Hz to 20,000Hz 0.06% T.H.D.

at 8Ω 60W+60W

(IEC/NF) From 63Hz to 12,500Hz, 0.7% T.H.D.

at 8Ω 70W+70W

at 4Ω 90W+90W

Dynamic power 85W(8Ω)

100W(6Ω)

120W(4Ω)

Damping factor 40(50Hz)

Total harmonic distortion

..... 0.06%(20Hz~20,000Hz, 60W, 8Ω)

0.03%(1kHz, 60W, 8Ω)

Intermodulation distortion 0.03%(60W, 8Ω)

(70Hz : 7kHz = 4:1)

Frequency response(IHF '78)

CD/TUNER/AUX/TAPE1,2

..... 5Hz~90kHz, +0dB, -3dB

PHONO 'RIAA' response 20Hz~20kHz,

+0.3dB, -0.3dB

Maximum input level

PHONO(MM) 120mV, 0.3% T.H.D. at 1kHz

PHONO(MC) 10mV, 0.3% T.H.D. at 1kHz

Signal to noise ratio

PHONO(MM) 88dB(IHF '66)

79dB(IHF '78)

PHONO(MC) 68dB(IHF '66)

75dB(IHF '78)

CD/TUNER/AUX/TAPE1,2 105dB(IHF '66)

81dB(IHF '78)

Input sensitivity/impedance

PHONO(MM) 2.5mV/47kΩ

PHONO(MC) 0.2mV/100Ω

CD/TUNER/AUX/TAPE1,2 200mV/47kΩ

Tone control

BASS ±10dB(at 100Hz)

TREBLE ±10dB(at 10kHz)

Loudness control

(VOLUME at -30dB level) +6dB(100Hz)

+3dB(10kHz)

Output level/impedance

TAPE REC 200mV/1.5kΩ

General

Power consumption 200W

AC outlet

For Australia

SWITCHED 1;(200W max.)

For other countries

SWITCHED 3;(Total 200W max.)

Dimensions W : 440mm (17-5/16")

H : 137mm (5-3/8")

D : 351mm(13-13/16")

Weight(net) 7.9kg(17.4lb)

Note : KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be change without notice.

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KENWOOD ELECTRONICS SINGAPORE PTE LTD.

No. 1 Genting Lane # 07-00, KENWOOD Building, Singapore, 1334

Note :

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the Europe(E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.